

WA  
900  
GG4  
U4r  
1944

U.S. OFFICE OF STRATEGIC SERVICES.  
RESEARCH AND ANALYSIS BRANCH  
REGIONAL INCIDENCE OF DISEASE IN  
GERMANY

WA 900 GG4 U4r 1944

31520550R

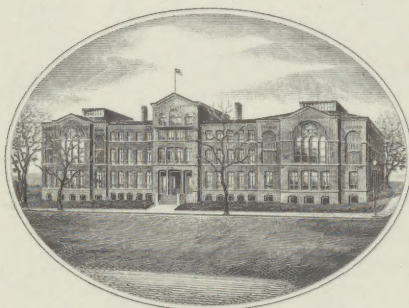


NLM 05146282 5

NATIONAL LIBRARY OF MEDICINE

ARMY MEDICAL LIBRARY

FOUNDED 1836



WASHINGTON, D.C.

Return To:

National Library of Medicine  
8600 Rockville Pike  
Bldg. 38, Room B1-E23  
Bethesda, MD 20894

MAY 09 1999

Living  
OK





097.3  
Z1 092  
No. 1423

CONFIDENTIAL

U.S. OFFICE OF STRATEGIC SERVICES

Research and Analysis Branch

R & A No. 1423

THE REGIONAL INCIDENCE OF DISEASE IN GERMANY

A comparison of the incidence rates of diphtheria, scarlet fever, dysentery, typhoid and paratyphoid fever for various regions of Germany.

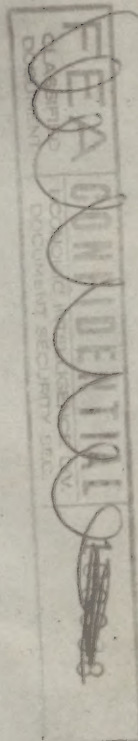
DEPARTMENT OF STATE  
REFERENCE DIVISION

**FILE COPY**

PLEASE RETURN

REF

This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, 50 U. S. C. 31 and 32, as amended. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.



21 April 1944

Copy No. 11

DECLASSIFIED  
DOCUMENT



CONFIDENTIAL

CONFIDENTIAL

Summary

There is no consistent pattern of uniform regional variations. Certain regions are more affected by specific diseases in a given year than others. In another year, there may be substantial changes.

While the war years have produced such changes, it has not been possible to establish any pattern of regional variation or wartime change.

CONFIDENTIAL

437060



TABLE OF CONTENTS

	Page
Summary .....	111
I. Introduction .....	1
II. Incidence Rates of Specific Diseases .....	3
A. Diphtheria .....	3
B. Scarlet Fever .....	5
C. Dysentery .....	7
D. Typhoid Fever .....	9
E. Paratyphoid Fever .....	11
III. The Rank of the Regions of Germany According to the Incidence of Specific Diseases .....	13

TABLES

Table 1. Cases of Diphtheria per 10,000 Inhabitants.....	4
Table 2. Cases of Scarlet Fever per 10,000 Inhabitants..	6
Table 3. Cases of Dysentery per 10,000 Inhabitants.....	8
Table 4. Cases of Typhoid Fever per 10,000 Inhabitants..	10
Table 5. Cases of Paratyphoid Fever per 10,000 Inhabitants.....	12
Table 6. Seventeen German Regions, Ranked According to Incidence of Disease, 1938, 1939, 1941, 1942. 14-16	

CONFIDENTIAL

THE REGIONAL INCIDENCE OF DISEASE IN GERMANY

I. INTRODUCTION

The diseases selected include diphtheria, scarlet fever, dysentery, typhoid, and paratyphoid, incidence rates of which are calculated per 10,000 inhabitants. Comparisons are presented for two pre-war years, 1938 and 1939, and two war years, 1941 and 1942.

More complete information pertaining to these diseases will be found in the relevant parts of Health in Axis Europe, R & A No. 1070, 6 October 1943. The present study concerns one aspect not treated there, the question of whether there is a consistent pattern of uniform regional variations in disease throughout the years. The war has changed the previous regional distribution of disease incidence but the changes have been of an erratic nature, precluding the formulation of general statements as to the evolution of a new pattern; nor has it been possible to ascertain the extent to which the findings presented in the following pages should be modified in the light of such factors as deficient reporting of diseases, recent population movements, or the effects of air raids. The scale on which population movements

CONFIDENTIAL



occurred in 1942 is uncertain. It is also uncertain to what extent such movements are reflected in the population base of the rates and whether or not members of the armed forces are included.

The statistical data with respect to the incidence of the five diseases under study are presented in the tables on the following pages. The figures, which have been taken in their entirety from the Reichsgesundheitsblatt, the official publication of the Reich Health Office, are presented in two forms to illustrate different aspects of the problem.

There is first presented a series of 5 tables indicating the incidence of the respective diseases per 10,000 inhabitants in the various regions, in order to give a quantitative picture of the prevalence of disease.

Table 6, on the other hand, indicates the rank of the several regions of Germany according to the incidence of the diseases. The figures given are not of cases of disease, but show the rank of the given region among those of all Germany. Thus, Anhalt, which had the highest incidence of diptheria in 1938, is assigned the numeral "1" under that year; by 1939 it had fallen to ninth place, and is assigned the numeral "9". This table would reveal, should they exist, any fixed patterns in the regional incidence of the diseases under study.

## II. INCIDENCE RATES OF SPECIFIC DISEASES

### A. Diphtheria

The data do not reveal a consistent regional pattern. During the war years, Baden, Sachsen, the Sudeten territory, Bayern, and certain parts of Prussia show a rather high incidence. Of the regions, before the war, Bayern, Sachsen and Baden had a lower-than-average incidence. There is thus a possibility that the more recent outbreaks have been heavier in those regions which in former years were less exposed to this disease and thus had acquired a lesser degree of immunization. Table 1 on the following page indicates the number of cases of diphtheria per 10,000 inhabitants.



Table 1. CASES OF DIPHTHERIA PER 10,000 INHABITANTS

1938		1939		1941		1942	
Anhalt	49.0	Sudetenland	40.1	Hessen	34.8	Thüringen	49.0
Bremen	38.6	Bremen	32.2	Baden	32.5	Baden	45.1
Preussen	26.2	Ostmark	27.8	Lippe	31.7	Sudetenland	44.4
Oesterreich	25.0	Hamburg	26.2	Sudetenl.	29.9	Anhalt	43.6
Germany a	22.0	Lippe	25.6	Sachsen	26.4	Sachsen	38.6
Lippe	21.5	Preussen	24.0	Bayern	26.1	Württemberg	38.0
Hamburg	19.8	Germany	22.0	Sch.-Lippe	23.9	Bayern	35.9
Thüringen	19.2	Bayern	18.0	Preussen	23.7	Braunsch-	
Braunschweig	18.5	Hessen	16.7	Germany	22.8	weig	35.2
Bayern	17.5	Thüringen	16.3	Meckleng.	22.5	Westmark	34.0
Hessen	17.0	Anhalt	16.2	Braunsch.	21.6	Mecklenburg	32.6
Mecklenburg	14.8	Mecklenburg	15.2	Hamburg	21.4	Hessen	31.8
Sachsen	12.8	Sachsen	14.7	Ostmark	20.1	Preussen	31.4
Baden	12.3	Braunschweig	14.1	Oldenburg	18.6	Oldenburg	31.2
Saarland	12.1	Baden	13.8	Anhalt	18.1	Germany	31.2
Oldenburg	12.0	Schaumb-Lippe	8.5	Thüringen	17.1	Lippe	27.2
Württemberg	7.5	Oldenburg	8.2	Saarland	14.9	Hamburg	24.0
Schaumb-Lippe	2.2	Saarland	6.5	Württemb.	14.1	Alpen-and	
		Württemberg	6.2	Danzig-		Donau-	
				Westpr.	13.7	Reichsgaue	22.5
				Warthel.	9.9	Bremen	21.5
				Bremen	9.4	Danzig-West-	
						preussen	13.4
						Wartheland	9.4
						Schaumburg-	
						Lippe	9.4

B. Scarlet Fever

Lippe, Bremen, Mecklenburg, Hamburg, Thüringen, Anhalt, the Sudeten territories, and some parts of Prussia show a high incidence of this disease throughout the years. The incidence is lower for the southern parts of Germany. Rates for Württemberg, Baden and Bavaria are consistently below the average. Table 2 on the following page indicates cases of scarlet fever per 10,000 inhabitants.



Table 7. INDEX OF QUALITY FROM THE 1930 IMMIGRANTS

	1930	1937	1941	1947			
Bremen	31.8	Sachsen	20.7	Brandenburg	28.1	Anhalt	84.5
Lippe	26.3	Mecklenburg	26.2	Brandenburg	28.3	Brandenburg	70.4
Mecklenburg	21.8	Brandenburg	24.0	Lippe	28.5	Brandenburg	64.4
Brandenburg	19.7	Mecklenburg	24.5	Brandenburg	28.5	Bremen	61.7
Brandenburg	18.1	Brandenburg	21.8	Anhalt	29.5	Brandenburg	60.1
Brandenburg	16.4	Brandenburg	22.7	Thüringen	29.3	Brandenburg	59.8
Brandenburg	15.3	Brandenburg	21.8	Brandenburg	29.5	Brandenburg	58.8
Thüringen	17.3	Brandenburg	21.8	Brandenburg	29.7	Brandenburg	55.9
Germany a	15.8	Anhalt	20.7	Preussen	34.1	Hessen	52.5
Brandenburg	18.1	Germany	19.3	Germany	31.0	Thüringen	52.0
Brandenburg	14.3	Lippe	17.3	Baden	29.2	Lippe	49.7
Brandenburg	14.3	Thüringen	16.7	Brandenburg	27.7	Preussen	45.8
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	27.0	Brandenburg	44.6
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	26.4	Germany	43.8
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.9	Brandenburg	39.8
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.2	Brandenburg	34.6
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.2	Brandenburg	31.4
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.2	Brandenburg	27.7
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.2	Brandenburg	24.1
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.2	Brandenburg	21.9
Brandenburg	14.0	Brandenburg	14.1	Brandenburg	25.2	Brandenburg	7.0

CONFIDENTIAL5. Dysentery

Leipzig, Kottbusburg, the Wartheland, and some parts of Prussia show a high incidence of this disease. The incidence is low in Wirttemberg, the Godeson territory, the Saarland and Hessen. The range within which variations of this disease take place is wider than in the case of diphtheria and scarlet fever and extends from .11 per 10,000 to 4.7 per 10,000. Table 3 on the following page indicates the number of cases of dysentery per 10,000 inhabitants.

CONFIDENTIAL



Table 3. CASES OF DYSENTERY PER 10,000 INHABITANTS

1938		1939		1941		1942	
Mecklenburg	3.0	Hamburg	3.8	Hamburg	2.7	Mecklenburg	4.7
Brandenburg	2.1	Mecklenburg	1.5	Mecklenburg	2.6	Wartheland	3.1
Bayern	1.1	Bayern	1.2	Wartheland	2.6	Bremen	1.8
Saarland	.83	Oldenburg	1.1	Baden	1.9	Baden	2.7
Preussen	.82	Preussen	.91	Oldenburg	1.5	Hamburg	2.0
Germany a	.78	Germany	.79	Bayern	1.4	Preussen	1.7
Oldenburg	.65	Thüringen	.65	Thüringen	1.3	Germany	1.7
Thüringen	.41	Sachsen	.46	Bremen	1.2	Oldenburg	1.6
Bremen	.34	Anhalt	.41	Preussen	1.2	Bayern	1.4
Baden	.29	Baden	.33	Germany	1.1	Thüringen	1.1
Sachsen	.29	Württemberg	.20	Anhalt	.76	Danig.-West-	
Hessen	.21	Braunschweig	.20	Sachsen	.67	Preussen	1.7
Oesterreich	.12	Hessen	.18	Danig.-West-		Sachsen	1.7
Württemberg	.068	Bremen	.15	Preussen	.93	Anhalt	1.1
Braunschweig	.058	Ostmark	.13	Saarland	.178	Braunschweig	.89
Lippe	.055	Saarland	.10	Hessen	.13	Alpen-und	
Anhalt	.0	Lippe	.033	Braunschweig	.41	Donau-Alts-	
Sch.-Lippe	.0	Sudetenland	.003	Ostmark	.37	goue	.78
		Sch.-Lippe	.0	Württemberg	.13	Alpen-	.39
				Sudetenland	.11	Württemberg	.50
				Lippe	.0	Westmark	.48
				Sch.-Lippe	.0	Sch.-Lippe	.38
						Lippe	.21
						Sudetenland	.17

a - Excluding Austria.

CONFIDENTIAL

D. Typhoid Fever

This disease, which has increased greatly in recent years, occurs more widely in northern Germany than in the South. Regions showing a consistently high incidence include the Sauerland, Danzig and Western Prussia, Mecklenburg and certain other parts of Prussia. The incidence is low in Baden, Bayern, Thuringen and the Saarland. Table 4 on the following page indicates the number of cases of typhoid fever per 10,000 inhabitants.



TABLE 4. BASIS OF TYPHOID FEVER PER 10,000 IN HABITANTS

1938		1939		1941		1942	
Lippe	1.6	Oldenburg	1.6	Vertheimland	2.7	Vertheimland	11.3
Saarland	1.4	Lippe	1.5	Danzig-West-		Danzig-West-	7.9
Schleswig-Holstein	1.1	Mecklenburg	1.3	preussen	4.0	preussen	
Prussia	.73	Bremen	1.1	Mecklenburg	1.2	Mecklenburg	2.8
Braunschweig	.87	Anhalt	.80	Sachsen	1.1	Sachsen	1.3
Thuringia	.51	Sachsen	.74	Sachsen	1.0	Sachsen	1.3
Prussia	.50	Germany	.50	Anhalt	.93	Preussen	1.4
Saarland	.46	Thuringia	.48	Germany	.86	Baden	1.1
Germany	.43	Preussen	.43	Preussen	.68	Anhalt	1.3
Thuringia	.38	Hessen	.34	Braunschweig	.58	Alpen- and Danzig	
Mecklenburg	.35	Braunschweig	.33	Bremen	.49	Schleswig-Holstein	1.2
Hamburg	.30	Oldenburg	.31	Saarland	.48	Braunschweig	.99
Prussia	.25	Bayern	.26	Sachsen	.46	Oldenburg	.97
Bayern	.23	Württemberg	.26	Hessen	.41	Prussia	.91
Baden	.23	Hamburg	.26	Thuringia	.41	Bayern	.81
Prussia	.23	Baden	.19	Hamburg	.43	Württemberg	.60
Oldenburg	.22	Sachsen	.16	Oldenburg	.42	Sachsen	
Saarland		Saarland	.09	Württemberg	.41	Lippe	.38
Alpen	.0	Sachsen-Lippe	.0	Bayern	.41	Lippe	.37
		Lippe		Lippe	.41	Hessen	.35
		Baden		Baden	.41	Westmark	.34
		Sachsen-Lippe		Sachsen-Lippe	.41	Thuringia	.30
				Sachsen		Sachsen	.27
				Hamburg		Hamburg	.22

Paratyphoid Fever

Paratyphoid incidence is high in Austria, Denmark, Sweden, Switzerland and Vietnam. It is lower in Belgium, Brazil and Western France and Thüringen. Table 1 on the following page indicates the number of cases of paratyphoid fever in 19,000 individuals.



TABLE 1. USERS OF PARATYPHOID FEVER ISOLATES 1961-1962

1934	1939	1941	1942
1.2 Ostmark	1.1 Oldenburg	1.2	
1.3 Hessen	.77 Sachsen	1.8	Alpen- und Donau- 1.2
1.2 Bremen	.75 Bremen	1.5	Reichsgau
1.1 Baden	.61 Ostmark		
.62 Hamburg	.60 Braunschweig		
.52 Mecklenburg	.53 Germany		
.51 Württemberg	.52 Hamburg		
.50 Bayern	.47 Thüringen		
.47 Germany	.45 Preussen		
.43 Oldenburg	.43 Bayern		
.36 Preussen	.38 Sudetenland		
.33 Anhalt	.34 Saarland		
.15 Saarland	.32 Mecklenburg		
.15 Lippe	.27 Hessen		
.13 Braunschweig	.18 Anhalt		
Sch.-Lippe	.18 Württemberg		
Sudetenland	.17 Baden		
Sachsen	.11 Saarl.-West-		
Thüringen	.13 preussen		
	Wartheland		
	Lippe		
	Sch.-Lippe		

CONFIDENTIAL

VII. THE NAME OF THE REGION OF GERMANY  
ACCORDING TO THE INCIDENCE OF SPECIFIC DISEASES

From the data given in the preceding tables, it is possible to construct a table showing the pattern of the incidence of the five diseases in the various regions of the country. Table VIII on the following page presents this information. In the table a numerical indication rank among all the regions is assigned to each region for each of the four years. The region of highest incidence being indicated by "1", the next highest by "2", and so on. It is thus possible to determine whether any part or parts of Germany have shown a uniformly high or low rank either with respect to one or more diseases or with respect to all diseases over time.

Study of the table fails to indicate any very consistent pattern of uniform regional variations.

CONFIDENTIAL





CONFIDENTIAL

C. Dysentery

D. Typhoid fever

1938 1939 1941 1942

1938 1939 1941 1942

Mecklenburg	1	2	2	1
Hamburg	2	1	1	4
Bayern	3	3	5	7
Saarland b	4	15	11	15
Preussen	5	5	8	5
Oldenburg	6	4	4	6
Thüringen	7	6	6	8
Bremen	8	13	7	2
Baden	9	9	3	3
Sachsen	10	7	10	9
Hessen	11	12	12	13
Oesterreich a	12	14	14	12
Württemberg	13	10	15	14
Braunschweig	14	11	13	11
Lippe	15	16	16	17
Anhalt	16	8	9	10
Sch.-Lippe	17	17	17	16

Lippe	1	2	15	12
Mecklenburg	2	3	1	1
Oesterreich a	3	1	2	5
Bremen	4	4	6	8
Braunschweig	5	9	5	6
Anhalt	6	5	3	4
Preussen	7	7	4	2
Saarland b	8	16	7	14
Thüringen	9	6	10	15
Württemberg	10	12	13	10
Hamburg	11	13	11	17
Sachsen	12	15	8	16
Bayern	13	11	14	9
Baden	14	14	16	3
Hessen	15	8	9	13
Oldenburg	16	10	12	7
Schaumb.-Lippe	17	17	17	11

a - 1939, 1941: Ostmark; 1942: Alpen- and Donau-Reichsgaue  
 b - 1942: Westmark

CONFIDENTIAL



E. Paratyphoid

	1938	1939	1941	1942
Württemberg	1	7	14	12
Oesterreich	2	1	4	1
Saarland	3	12	10	15
Bremen	4	3	3	4
Baden	5	4	15	11
Bayern	6	8	9	13
Mecklenburg	7	6	11	5
Hamburg	8	5	6	8
Preussen	9	10	8	3
Thüringen	10	17	7	17
Lippe	11	13	16	6
Sachsen	12	16	2	14
Braunschweig	13	14	5	9
Anhalt	14	11	13	7
Hessen	c	2	12	10
Oldenburg	c	9	1	2
Schaumburg-Lippe	c	15	17	16

c - Not reported

CONFIDENTIAL

PRESSBOARD  
PAMPHLET BINDER

*Manufactured by*  
GAYLORD BROS. Inc.  
Syracuse, N. Y.  
Stockton, Calif.



WA 900 GG4 U4r 1944

31520550R



NLM 05146282 5

NATIONAL LIBRARY OF MEDICINE